



# South Carolina

## STATE LAW ENFORCEMENT DIVISION

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### FORENSIC SERVICES LABORATORY CUSTOMER SERVICE NOTICE 2025-01 February 14, 2025

### TOXICOLOGY DEPARTMENT PRELIMINARY SCREENING PANEL

Effective March 10<sup>th</sup>, 2025, the SLED Toxicology Department will be modifying its approach to case analysis. The current screening technique for blood specimens will be updated to a more comprehensive drug screening panel using Liquid Chromatography Quadrupole Time of Flight (LC-QTOF) instrumentation. The preliminary drug screen will cover compounds that are currently toxicologically significant and prevalent.

Based on the selected submission type, blood specimens will be evaluated based on one of two libraries. Rapid panels, Traffic Fatalities, Homicides, Suicides, Accidental Deaths and Driving Under the Influence casework will be analyzed using the SLED QTOF Library. Natural Deaths, Pending/Unexplained Deaths and Criminal Sexual Conduct casework will be analyzed using a more comprehensive library that will be referred to as SLED QTOF Expanded Library.

A list of the compounds included in each of the libraries with their detection thresholds are attached. If a compound not covered within the library is suspected, please indicate the specific compound(s) on the submission documentation or provide relevant details in the case history. The list of compounds screened by LC-QTOF will be reviewed on a quarterly basis and emerging substances of concern will be addressed and incorporated into the screening process as appropriate. When changes are made to the libraries an updated list will be provided. A list of compounds for each library can be found at [www.sled.sc.gov/toxicology](http://www.sled.sc.gov/toxicology).

We appreciate your understanding and cooperation as we implement these improvements. Should you have any questions or need further clarification, please contact Lt. Dustin Smith (803-896-7385).



*An Accredited Law Enforcement Agency*





Qualitative Compounds - SLED QTOF Library Expanded

Drugs with Threshold 1 ng/mL		Drugs with Threshold 0.1 µg/mL	
2-oxo-3-OH-LSD	Carfentanil	N-cyclohexyl methylene	Amobarbital
3-Chloro-PCP	CH-FUBIATA	N-cyclohexyl butylene	Secobarbital
4-ANPP	CH-PIATA	N-desethyl Isonitazene	
4-chloro deschloroalprazolam	Crotonyl fentanyl	N-ethyl pentylene	Drugs with Threshold 2 ng/mL
4-Cyano-CUMYL BUTINACA	Cyclopentyl fentanyl	N-Piperidinyl Etonitazene	2-methyl AP-237
4-fluoro MDMB Butinaca	Cyclopropylfentanyl	N-propyl butylene	Flualprazolam
5-chloro AB PINACA	Desalkylgigidiazepam	N-Pyrrolidino Etonitazene	Bromazolam
5-fluoro AB PINACA	Deschloroetizolam	N-Pyrrolidino Metonitazene	
5-fluoro EDMB-PINACA	Ethylene	N-Pyrrolidino Protonitazene	
5-fluoro MDMB-PICA	Etodesnitazene	Para-chloro furanyl fentanyl	Drugs with Threshold 5 ng/mL
AB-PINACA	Eutylene	para-chlorofentanyl	3-OH PCP
Acetyl/fentanyl	Flubromazepam	para-fluorobutryl fentanyl	d8-COOH-THC
ACHMINACA	Fluclozolam	Pentedrone	D8-THC
acryl fentanyl	Flumazenil	Pentylene	D-Terylone
ADB-4en-PINACA	Flunitrazolam	Piperidylthiambutane	Mitragynine
ADB-5'Br-BUTINACA	Fluorofentanyl	Protonitazene	
ADB-5'Br-PINACA	Fluoroisobutrylfentanyl (FIBF)	Psilocin	
ADB-BINACA	Furanyl fentanyl	Sufentanil	
ADB-FUBIATA	Hydroxy flubromazolam	Tetrahydrofuranlylfentanyl	
ADB-PINACA	Isotonitazene	TFMPP	
Alfentanil	MDMB-4en-Pinaca	Tianeptine	
AP-237	Methoxyacetyl/fentanyl	U-47700	
AP-238	Methylbutylene	U-48800	
APINACA	Methylene	U-49900	
Bromazepam	Metodesnitazene	Valeryl fentanyl	
Brorphine	Metonitazene	W-15	
Butonitazene	MMB-FUBINACA	W-18	
Butylene	N, N-Dimethylpentylene		
Butrylfentanyl	N-butylpentylene		

Qualitative Compounds- SLED QTOF Library Expanded		
Drugs with Threshold 10 ng/mL		
2-Fluoro-Deschloroketamine	Cathinone	Molindone
3,4-MDPPP	Chlorcyclizine	MPPP
3,4-MDPV	Clonidine	N,N dimethyltryptamine
3-chloroethcathinone	Deschloroketamine	Naloxone
3-chloro-N,N-dimethylcathinone	Desomorphine	Norflunitrazepam
4-chloro- 2,5- DMA	Diclazepam	Norverapamil
4-chloro-alpha-PVP	Digoxin	Oxymetazoline
4-chloroethcathinone	Donepezil	PCP / Phencyclidine
4-chloromethcathinone	Ethylphenidate	Pentazocine
4-chloro-N,N-dimethylcathinone	Felbamate	Phenacetin
4-Fluoroamphetamine	Flunitazene	Pheniramine
4-methylpentedrone	Fluorexetamine	Phenylpropanolamine
7-OH Mitragynine	Fluphenazine	PMA
8-Aminoclonazepam	Fluvoxamine	PMMA
Adinazolam	Iloperidone	Ropinirole
a-ethylaminohexanophenone	Levamisole	Scopolamine
Amantadine	Loperamide	Strychnine
a-PBP	LSD / Lysergide	Suvorexant
a-PIHP	Lumateperone	Tetrahydrozoline
a-PPP	Lurasidone	Thiopental
Atomoxetine	m-CPP	Tizanidine
BDB	MDPBP	Trimipramine
Benzphetamine	Meclonazepam	Vilazodone
BMDP	Medazepam	Xylazine
Brexiprazole	Medetomidine	Zolpidem phenyl-4-carboxylic acid
BZP	Mephedrone	
Cariprazine	MMMP	

Monitored Compounds- SLED QTOF Library Expanded	
Drugs with Threshold 10 ng/mL	
Antipyrine	Fenofibrate
Atenolol	Flecainide
Atropine	Fluconazole
Baclofen	Hydroxychloroquine
Bisoprolol	Ibuprofen
Bupivacaine	Laudanosine
Caffeine	Lidocaine
Cetirizine	Loratadine
Chlorzoxazone	Maprotiline
Chlorprothixene	MEG-X
Cimetadine	Meloxicam
Clopidogrel	Memantine
Cotinine	Mepivacaine
Cyproheptadine	Mesoridazine
DEET / Diethyltoluamide	Methoxyphenidine
Desloratadine	Metoclopramide
Desmethyl cyclobenzaprine	Nabumetone
Desmethyl diphenhydramine	Naproxen
Desmethyl Mirtazapine	N-desmethyl Clomipran
Dexamethasone	Nicotine
Dicyclomine	Norchlorcyclizine
Etomidate	Norcodeine
Felodipine	Norketamine
Fenfluramine	Norquetiapine
	Norsertaline
	Omeprazole
	Ondansetron
	Pantoprazole
	Papavarine
	Perampanel
	Phenmetrazine
	Phenylbutazone
	Prilocaine
	Procainamide
	Propranolol
	Propylhexedrine
	Pyrilamine
	Quinidine
	Quinine
	Ranitidine
	Ropivacaine
	Terbinafine
	Thioridazine
	Trifluoperazine
	Trimethoprim
	Trimipramine

These drugs will not be confirmed in current case work but will be monitored and addressed on a case by case basis.



Qualitative Compounds- SLED QTOF Library

Drugs with Limit of Detection 1 ng/mL		Drugs with Limit of Detection 0.1 µg/mL	
2-oxo-3-OH-LSD	Butyrylfentanyl	N-butylpentylone	Amobarbital
3-Chloro-PCP	Carfentanil	N-cyclohexyl methylone	Secobarbital
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5-fluoro EDMB-PINACA	Deschloroetizolam	N-Pyrrolidino Metonitazene	
5-fluoro MDMB-PICA	Ethylone	N-Pyrrolidino Protonitazene	Drugs with Limit of Detection 5 ng/mL
AB-PINACA	Etodesnitazene	Para-chloro furanyl fentanyl	3-OH PCP
Acetyl fentanyl	Eutylone	para-chlorofentanyl	4'-methyl-a-PPP
ACHMINACA	Flubromazepam	para-fluorobutyryl fentanyl	a-PVP
acryl fentanyl	Fluclotizolam	Pentedrone	
ADB-4en-PINACA	Flunitrazolam	Pentylone	
ADB-5'Br-BUTINACA	Fluorofentanyl	Piperidylthiambutane	
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3,4-MDPV	BZP
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3-chloro-N,N-dimethylcathinone	Cathinone
4-chloro-2,5-DMA	Chlorcyclizine
4-chloro-alpha-PVP	Deschloroketamine
4-chloroethcathinone	Desomorphine
4-chloromethcathinone	Diclozapam
4-chloro-N,N-dimethylcathinone	Ethylphenidate
4-Fluoroamphetamine	Flunitazene
4-methylpentedrone	Fluorexetamine
7-OH Mitragynine	Iloperidone
8-Aminoclonazepam	LSD
Adinazolam	Lumateperone
a-ethylaminohexanophenone	Lurasidone
a-PBP	m-CPP
a-PiHP	MDPBP
a-PPP	Meclonazepam
BDB	Medazepam
	Medetomidine
	Mephedrone
	MMMP
	Molindone
	MPPP
	N,N dimethyltryptamine
	Norfunitrazepam
	PCP
	Pheniramine
	Phenylpropanolamine
	PMA
	PMMA
	Ropinirole
	Suvorexant
	Thiopental
	Tizanidine
	Trimipramine
	Vilazodone
	Xylazine
	Zolpidem phenyl-4-carboxylic acid